

A new *Spilonota* (Eucosmidae) from JapanBy SIGERU MORIUTI<sup>1)</sup>*Spilonota distyliana* n. sp. (fig. 1)

♂. Head, labial palpus, antenna, thorax and abdomen greyish brown. Forewing elongate, rather dilated, costa gently arched, apex obtuse, termen straight, vertical; fuscous; costal strigulae obsolete; sometimes dorsum of basal area testaceous; distal half greyish brown, with some scattered fuscous scales, bounded from 2/5 of dorsum to before apex, colour of area along termen, excluding apex, slightly darker than internal area of pretornal spot; pretornal spot conspicuous, semicircular, fusco-piceous; ocellus almost extinct; cilia greyish brown mixed with fuscous, tip blackish. Hindwing greyish brown; cilia greyish brown.



Fig. 1. *Spilonota distyliana* n. sp., ♂. (×2)

♀. Ground colour of body and forewing is distinctly lighter than in the male. Forewing testaceous; distal half greyish brown and slightly lighter colour than in hindwing; pretornal spot fusco-peceous as in the male.

Wing expanse, 14–19 mm.

Genitalia. Male (figs. 2, 3): Socii broad; in ventral aspect, inner wall strongly concave at apical quarter, and thence slender to apex as shown in fig. 3. Anellus narrow. Apical median portion of tegumen weakly concave. Female (fig. 4): Outer margin of ovipositor lobes zigzagged conspicuously. Genital plate broad, caudal process weak, apical emargination broad, leaving a pair of widely remote rounded projections. Ductus bursae strongly sclerotized in anterior three-fifths; inception of ductus siminalis at junction of ductus bursae and bursa copulatrix.

Holotype ♂: Sumiyosi, Osaka, Settu, 21 IV 1956. Allotype ♀: Sakai, Izumi, 1 V 1956. Paratypes: Kitasirakawa, Kyôto, Yamasiro, 11–20 IV 1956, 4♂♂, 4♀♀; Sumiyosi, Osaka, Settu, 3 IV–1 V 1956, 18♂♂, 4♀♀; Sakai, Izumi, 6–13 V 1955, 3♂♂, 2♀♀, 3 IV–1 V 1956, 8♂♂, 20♀♀, & 22 IV–11 V 1957, 11♂♂, 10♀♀ (S. MORIUTI). All types reared from larvae feeding on leaves of *Distylium racemosum* SIEBOLD et ZUCCARINI.

Other specimens examined: Nagano, Kawati (S. ISSIKI & T. YASUDA); Ôsima, Kii (A. MUTUURA & T. KODAMA).

Distribution: Japan (Honsyû).

This distinct species cannot be confused with any other described Japanese *Spilonota*.

**Mature larva**<sup>2)</sup> (figs. 4–13): Average length, 13.5 mm. Head shiny yellowish brown; anterior, occipital and ventral margins, eye-spot, broad longitudinal stripe at a level of ocellus extending from occipital margin, front, and postclypeus dark brown to brownish black. Body dull brown to pale brown, or sometimes pale greenish; prothoracic shield, thoracic legs, and anal plate dark brown to brownish black, shining; peritreme of spiracles nearly black; pinacula darker than ground colour. Head (fig. 7) broader than long; fronto-clypeus (excluding anticlypeus) slightly longer than wide, extending about three-fourths to vertical triangle; clypeus nearly defin. Ocelli six on each side, third and fourth approximate. Mandible (fig. 9) with five teeth, outer three of which are pointed,

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2) The nomenclature of the setae is that proposed by HINTON (1946).

the fourth rounded, and the innermost small. Labrum as shown in fig. 8. Coxal plate of prothoracic leg and pinaculum of seta V1 obviously separated, and on meso- and metathorax, pinacula of V1 in contact with coxae. Prolegs (fig. 11) with  $80 \pm$  crochets in a uniserial circle, anal prolegs with  $45 \pm$  crochets. Spiracles round or nearly round, those of prothorax and 8th abdominal segment larger than remainder and of about equal size. Anal comb distinctive, with many small prongs as shown in fig. 13. Chaetotaxy : head (figs. 6,7) with puncture Va below and mesad from V3, and usually nearer V3 than V2 ; setae of V group formed a straight line, V2 equidistant from V1 and V3. Puncture Pb about nearer P2 than P1, and mesad from a line joining P1 and P2, but sometimes laterad. Puncture Pa slightly nearer L1 than A3. Puncture Aa near A2 ; A2 distinctly nearer A1 than A3. Puncture AFa usually nearer AF1 than AF2. Puncture Fa below and mesad from F1. Puncture La far from but almost exactly behind L1. Puncture SOa between SO2 and SO3, and nearer the latter than the former. Puncture Oa cannot find. Prothorax (fig. 10) with puncture XDa postero-dorsad from XD1, and rarely behind ; XDb usually nearer D1 than XD1, and sometimes equidistant from D1 and XD1 ; XDc posterior to a line joining XD1 and XD2, and nearer the latter than the former ; D1 anterior to D2 and above level of XD1. Seta SD1 above spiracles of 1st-7th abdominal segments, and cephalad from spiracle on 8th abdominal segment ; SD1 and SD2 on common or separated pinacula on 1st-8th abdominal segments ; SD2 on abdominal segments as minute as microscopic setae. SV group unisetose on meso- and metathorax, bisetose on prothorax and 7th-9th abdominal segments, trisetose on 1st-6th abdominal segment. 9th abdominal segment (fig. 12) with L group trisetose.

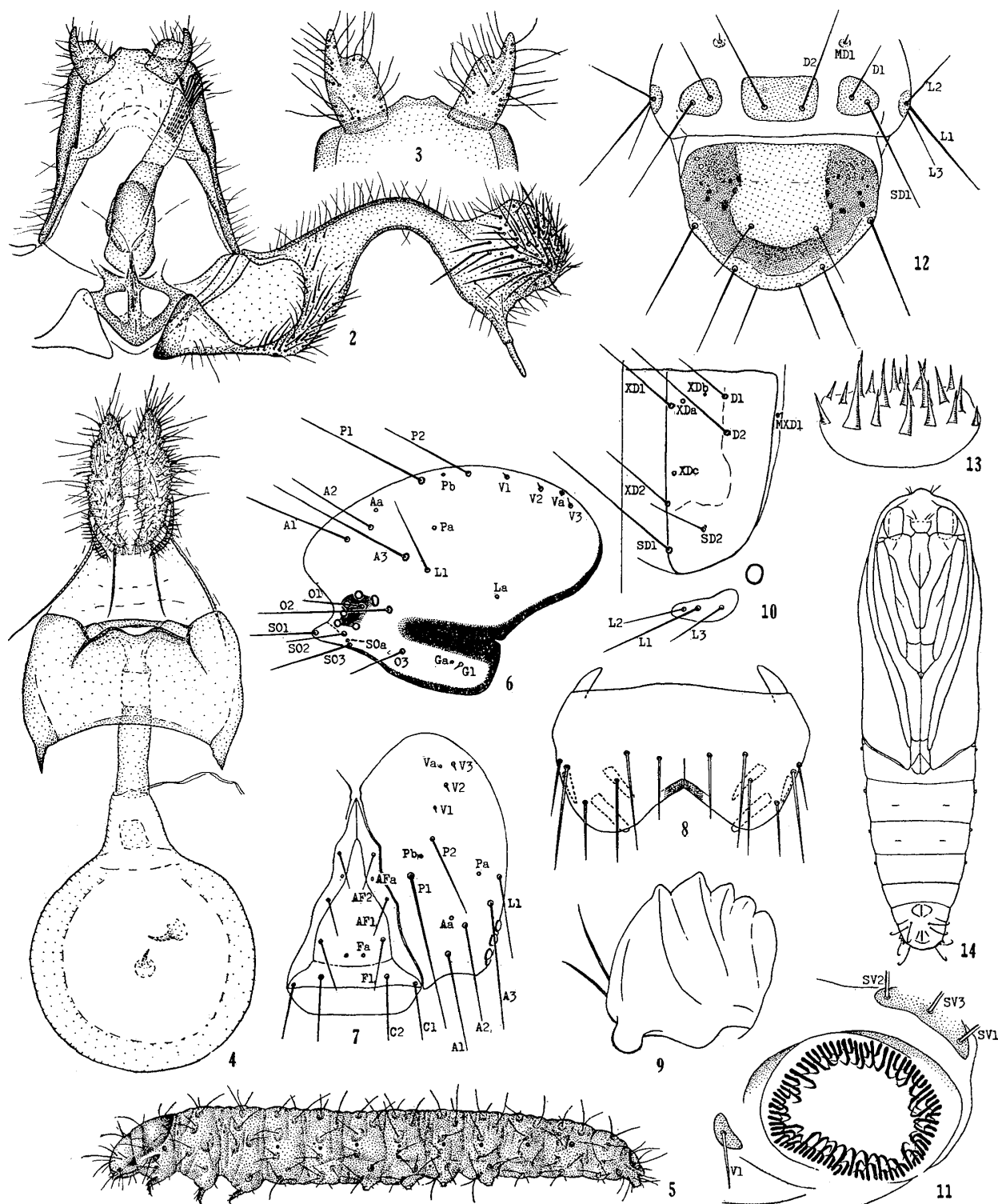
**Pupa** (fig. 14) : Average length, 9 mm. Shiny brown to dark brown. Body slender, tapering gradually from 4th abdominal segment to caudal end of body, with length about four times the greatest width. Front raised, with two straight setae on each side. Clypeo-labral suture scarcely discernible. Clypeus with two pairs of straight setae. Maxillary palpus and labrum distinct. Labial palpus about three-fifths the length of maxilla. Wing extending over 4th abdominal segment ; hindwing visible. Coxae of pro- and mesothoracic legs visible, and that of metathoracic leg slightly visible. Mesothoracic leg distinctly shorter than antenna. Metathoracic leg nearly extending beyond wingtip, or rarely not so. Proleg scars visible. On dorsum, 1st abdominal segment without spine ; 2nd-7th abdominal segments with two rows of spines, the cephalic rows of spines very strong and composed of alternating large and small spines although on 2nd abdominal segment weak ; 8th-10th abdominal segments with only cephalic rows, and spines on 10th abdominal segment larger than those on 8th and 9th abdominal segments. 10th abdominal segment with some long hooked setae on dorsum besides spines, anal rise with two pairs of long hooked setae. Cremaster absent.

**Ecological notes** : As already mentioned, the larval food plant is *Distylium racemosum* SIEBOLD et ZUCCARINI (Hamamelidaceae). There is one generation a year. The adults emerge from the early part of April to the middle of May. Hatching takes place in June. The young larva ties two or more leaves together with silk in which it lives and eats. Feeding continues throughout winter. The larva becomes full grown in early spring. Within the tied up leaves, it constructs a cocoon consisting of frass, lined with silk, in which it pupates.

#### References

- HINTON, H.E. 1946. Trans. R. ent. Soc. Lond. 97 : 1-37 ; ISSIKI, S. 1957. Icon. Het. Jap. Col. Nat. : 62-3 ; MORIUTI, S. 1957. Pub. Ent. Lab. Univ. Osaka Pref. 3 : 7-17.

摘要 : この報文には, *Spilonota distyliana* MORIUTI イスノキハマキ (鋸目葉捲蛾科) を記載した。

Figs. 2-14. *Spilonota distyliana* n. sp.

Figs. 2-4. Genitalia. (2) ♂, ventral aspect. (3) ♂, socii, ventral aspect. (4) ♀, ventral aspect.  
 Figs. 5-13. Mature larva. (5) Lateral aspect. (6) Head, lateral aspect. (7) Head, dorsal aspect.  
 (8) Labrum, dorsal aspect. (9) Right mandible, ventral aspect. (10) Prothorax, dorsal and lateral setae.  
 (11) Left proleg of 4th abdominal segment. (12) 9th and 10th abdominal segments, dorsal aspect. (13) Anal comb. Fig. 14. Pupa, ♂, ventral aspect.